



Pump Storage Plant Nant de Drance (CH) Pressure Water Tunnel Grouting

Employer	Nant de Drance SA, Finhaut
Client	GMI Groupement Marti Implenla, Marti Tunnelbau AG, Moosseedorf
Execution of the works	Renesco GmbH, Abt. Marti Geotechnik
Designer	Pöyry Schweiz AG
Construction Period	2013 - 2014
Contract Sum (grouting only)	CHF 1.250.000

Project Description

The 900MW Nant de Drance pumped storage station is being built near the French border in the Swiss Canton of Wallis. The two 1,500m long pressure water tunnels, with breakout diameters of 7.7m, are the centerpiece of the project.

Scope of services

Systematic contact grouting throughout the entire length:

- Number of bore holes: 4,376
- Hole depth: up to 30cm into the rock

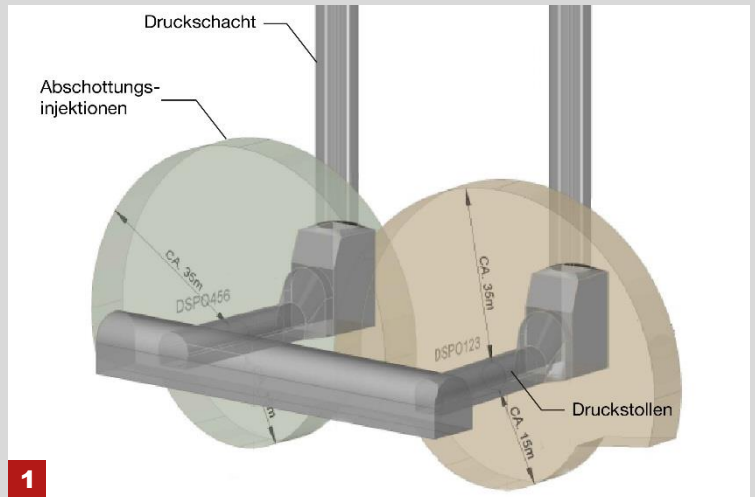
Sector by sector consolidation grouting, depending on geology:

- Number of bore holes: 1,344
- Hole depth: up to 4m into the rock

Bulkhead grouting consisting of three rings each for prevention of water permeability in the longitudinal direction of the pressure tunnels:

- Number of bulkheads: 10
- Number of bore holes: 552
- Bore hole depth: up to 35m into the rock

Grouting took place with two units operating in three shifts.



- Front page: Bore holes for bulkhead grouting
1. Bulkhead grouting system diagram
 2. Grout container (6 pumps) and mixing plant
 3. Bore holes for contact grouting